NUMERIC FUNCTIONS

In MySQL, you can use various mathematical and rounding functions to perform operations on numeric values. Here are some commonly used mathematical and rounding functions:

ROUND(): The ROUND() function is used to round a numeric value to a specified number of decimal places.

SELECT ROUND(12.345, 2); -- Result: 12.35

TRUNCATE(): The TRUNCATE() function is used to truncate a numeric value to a specified number of decimal places (similar to rounding, but it discards digits).

SELECT TRUNCATE(12.345, 2); -- Result: 12.34

CEILING(): The CEILING() function is used to round a numeric value up to the nearest integer greater than or equal to the value.

SELECT CEILING(12.345); -- Result: 13

FLOOR(): The FLOOR() function is used to round a numeric value down to the nearest integer less than or equal to the value.

SELECT FLOOR(12.345); -- Result: 12

ABS(): The ABS() function is used to return the absolute (positive) value of a numeric expression.

SELECT ABS(-5); -- Result: 5

RAND(): The RAND() function is used to generate a random floating-point number between 0 (inclusive) and 1 (exclusive).

SELECT RAND(); -- Result: A random number between 0 and 1

STRING FUNCTIONS

1. LENGTH
2. UPPER
3. LOWER
4. LTRIM
5. RTRIM
6. TRIM
7. LEFT("KINDER", 4) ---- KIND
8. RIGHT("KINDER", 4) --- NDER
9. SUBSTRING(STRING, START\_POSITION, LENGTH)
10. LOCATE("N", "KINDERGARDEN") ---- 3
11. CONCAT(STRING, STRING)

DATES FUNCTIONS

1. NOW() --- Current Date and Time
2. CURDATE() --- Current Date
3. CURTIME() ---- Current Time
4. YEAR(NOW()) --- Current Year
5. MONTH(NOW()) --- Current Month
6. DAY(NOW()) --- Current Day
7. HOUR(NOW()) --- Current Hour
8. MINUTE(NOW()) --- Current Minute
9. SECOND(NOW()) --- Current Second
10. EXTRACT( DAY FROM NOW())
11. EXTRACT( YEAR FROM NOW())
12. EXTRACT( MONTH FROM NOW())
13. EXTRACT( HOUR FROM NOW())
14. EXTRACT( MINUTE FROM NOW())
15. EXTRACT( SECOND FROM NOW())

DATE AND TIME FORMAT

1. SELECT DATE\_FORMAT(NOW(), "%y") --- 23
2. SELECT DATE\_FORMAT(NOW(), "%Y") --- 2023
3. SELECT DATE\_FORMAT(NOW(), "%m %Y") --- 09 2023
4. SELECT DATE\_FORMAT(NOW(), "%M %Y") --- SEPTEMBER 2023
5. SELECT DATE\_FORMAT(NOW(), "%M %d %Y") --- SEPTEMBER 23 2023
6. SELECT TIME\_FORMAT(NOW(), "%H:%i %p") --- 09:37 PM

CALCULATING DATES AND TIMES

SELECT DATE\_ADD(NOW(), INTERVAL 1 YEAR); --- 1 YEAR FROM NOW

SELECT DATE\_ADD(NOW(), INTERVAL -1 YEAR); --- 1 YEAR BACK FROM NOW

SELECT DATE\_SUB(NOW(), INTERVAL -1 YEAR); --- 1 YEAR FROM NOW

SELECT DATE\_SUB(NOW(), INTERVAL 1 YEAR); --- 1 YEAR BACK FROM NOW

SELECT DATEDIFF("2019-01-05", "2019-01-01");

SELECT DATEDIFF(LATER\_DATE, EARLIER\_DATE);

SELECT TIME\_TO\_SEC(LATER\_TIME) - TIME\_TO\_SEC(EARLIER\_TIME);

IFNULL

SELECT ORDER\_ID,

IFNULL(SHIPPER\_ID, "NOT ASSIGNED") AS SHIPPER

FROM ORDERS;

COALESCE

SELECT ORDER\_ID,

COALESCE(SHIPPER\_ID, COMMENTS, "NOT ASSIGNED") AS SHIPPER

FROM ORDERS;

IF

IF(EXPRESSION, FIRST\_VALUE, SECOND\_VALUE);

SELECT ORDER\_ID, ORDER\_DATE,

IF(YEAR(ORDER\_DATE) = YEAR(NOW()), "ACTIVE", "ARCHIVED")

AS ORDER\_STATUS

FROM ORDERS;

CASE

SELECT ORDER\_ID, ORDER\_DATE,

CASE

WHEN YEAR(ORDER\_DATE) = YEAR(NOW()) THEN "ACTIVE"

WHEN YEAR(ORDER\_DATE) = YEAR(NOW())-1 THEN "LAST YEAR"

WHEN YEAR(ORDER\_DATE) < YEAR(NOW())-1 THEN "ARCHIVE"

ELSE "FUTURE"

END

AS ORDER\_STATUS

FROM ORDERS;